Amendments to the claims:

1. (Canceled)

2. (Currently Amended) A microelectromechanical (MEMS) structure on a substrate, the

MEMS structure comprising:

an actuator body connected with a suspension system; and

the suspension system connected with the substrate, the suspension system comprising:

a set of one or more flexures, each flexure connecting the actuator body with the

substrate; and

a set of one or more torsional elements, wherein each torsional element connects a

corresponding flexure with the actuator body, comprises the only physical connection

between the corresponding flexure and the actuator body, and provides strain relief

between the corresponding flexure and the actuator body, each torsional element having a

length comprising the distance from the corresponding flexure to the actuator body, the

length being greater than the width of the torsional element, wherein the width of the

torsional element is less than the width of the corresponding flexure wherein each

torsional element has an angle of twist per unit moment substantially equal to a first

value; and

a set of one or more anchor points, wherein each anchor point connects a

corresponding flexure to the substrate and has an angle of twist per unit moment

substantially equal to a second value, wherein the first value is greater than the second

value.

3. (Previously Presented) The MEMS structure of claim 2, wherein each torsional element

relieves angular strain caused by a difference between the angle of the corresponding flexure and

the angle of the actuator body.

4. (Previously Presented) The MEMS structure of claim 2, wherein each torsional element

has an angle of twist per unit moment (θ /Nm) of 7.00E+06 or greater.

Attny Docket:IRIS.P0001 PTO Serial Number:10/705,213 5. (Previously Presented) The MEMS structure of claim 2, wherein each torsional element

has a length that extends from the corresponding flexure to the actuator body, the length having a

value equal to or greater than $5\mu m$ and equal to or less than $20\mu m$.

6. (Previously Presented) The MEMS structure of claim 2, wherein each torsional element

has a width that extends perpendicular to its length and substantially parallel to the substrate, the

width having a value equal to or greater than $2\mu m$ and less than $10\mu m$.

7. (Previously Presented) The MEMS structure of claim 2, wherein a torsional element

comprises a torsional attachment or a torsional spring.

8. (Previously Presented) The MEMS structure of claim 7, wherein a torsional element is

shaped in a serpentine form.

9. (Canceled)

10. (Previously Presented) The MEMS structure of claim 2, wherein the actuator body is a

platform, actuator segment, or mirror segment.

11. (Previously Presented) The MEMS structure of claim 2, wherein each torsional element

extends from the corresponding flexure to the actuator body in a direction that is substantially

perpendicular to the corresponding flexure.

12. (Previously Presented) The MEMS structure of claim 2, wherein the suspension system is

configured to elevate the entirety of the actuator body above the substrate.

13. (Currently Amended) The MEMS structure of claim 9 2, wherein each torsional element

has a width that is less than the width of the corresponding flexure at the anchor point.

-- 3 --

Attny Docket: IRIS.P0001

PTO Serial Number: 10/705,213

- 14. (New) The MEMS structure of claim 2, wherein each torsional element provides strain relief between a corresponding flexure and the actuator body.
- 15. (New) The MEMS structure of claim 2, wherein the width of a torsional element is less than the width of the corresponding flexure.